

The undersigned requests that the present international application be processed

| receiving office use only 979                                |  |
|--|--|
| International Application No.                                |  |
| International Filing Date                                    |  |
|  |  |
| Name of receiving Office and "PCT International Application" |  |

9 20 CED 2005

according to the Patent Cooperation Treaty. Applicant's or agent's file reference 2003UR013 (if desired) (12 characters maximum) Box No. I TITLE OF INVENTION A WELLBORE APPARATUS AND METHOD FOR COMPLETION, PRODUCTION AND INJECTION Box No. II APPLICANT This person is also inventor Name and address: (Family name followed by given name; for a legal entity, full official designation. Telephone No. The address must include postal code and name of country. The country of the address indicated in this 713-431-4577 Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) Facsimile No. EXXONMOBIL UPSTREAM RESEARCH COMPANY 713-431-4664 P. O. Box 2189 Houston, Texas 77252.2189 Teleprinter No. United States of America Applicant's registration No. with the Office State (that is, country) of nationality: State (that is, country) of residence: This person is applicant for the purposes of: all designated all designated States except the United States the States indicated in the United States of America States of America only the Supplemental Box Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S) Name and address: (Family name followed by given name; for a legal entity, full official designation. This person is: The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) applicant only applicant and inventor DALE, Bruce A. 7122 Hidden Trails Court Sugar Land, TX 77479 inventor only (If this check-box United States of America is marked, do not fill in below.) Applicant's registration No. with the Office State (that is, country) of nationality: State (that is, country) of residence: US US This person is applicant all designated States except the United States of America all designated the United States the States indicated in for the purposes of: States of America only the Supplemental Box Further applicants and/or (further) inventors are indicated on a continuation sheet. Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE The person identified below is hereby/has been appointed to act on behalf agent of the applicant(s) before the competent International Authorities as: common representative Name and address: (Family name followed by given name; for a legal entity, full official designation. Telephone No. The address must include postal code and name of country.) 713-431-4577 Facsimile No. KATZ, Gary P. 713-431-4664 ExxonMobil Upstream Research Company P. O. Box 2189 Teleprinter No. Houston, TX 77252,2189 United States of America Agent's registration No. with the Office 46.099 Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

| Sheet N   | lo <sup>2</sup>                                    |  |  |
|---|--|--|--|
| Continuation of Box No. II FURTHER APPLICANTS   |  |  |  |
| If none of the following subsect is used, this sheet should   | not to be included ir                              | the Iquest.  |  |
| Name and address: (Family name followed by given name; for a legal entity, fui<br>The address must include postal code and name of country. The country of the addi<br>Box is the applicant's State (that is, country) of residence if no State of residence is i   | This person is:                                    |  |  |
| MOHR, John W.<br>3015 Cotter Lake Circle<br>Missouri City, TX 77459   |  | applicant and inventor inventor only (If this check-box is                     |  |
| United States of America  |  | marked, do not fill in below.)  Applicant's registration No. with the Office   |  |
|   |  | 0  |  |
| State (that is, country) of nationality: US   | State (that is, count                              | ry) of residence:  |  |
|   | States except ates of America                      | the United States of America only the States indicated in the Supplemental Box |  |
| Name and address: (Family name followed by given name; for a legal entity, fu. The address must include postal code and name of country. The country of the add   | ll official designation.<br>ress indicated in this | This person is:  |  |
| Box is the applicant's State (that is, country) of residence if no State of residence is  | indicated below.)                                  | applicant only   |  |
| YEH, Charles S.<br>  9511 Merlins Oaks Court<br>  Spring, TX 77379  |  | applicant and inventor   |  |
| United States of America  |  | inventor only (If this check-box is marked, do not fill in below.)             |  |
|   |  | Applicant's registration No. with the Office                                   |  |
| State (that is, country) of nationality: US   | State (that is, count<br>US                        | ry) of residence:  |  |
| This person is applicant all designated all designated for the purposes of:   | States except ates of America                      | the United States of America only the States indicated in the Supplemental Box |  |
| Name and address: (Family name followed by given name; for a legal entity, full The address must include postal code and name of country. The country of the address must include postal code and name of country.  | ress indicated in this                             | This person is:  |  |
| Box is the applicant's State (that is, country) of residence if no State of residence is  | naicatea below.)                                   | applicant only   |  |
|   |  | applicant and inventor   |  |
|   |  | inventor only (If this check-box is marked, do not fill in below.)             |  |
|   |  | Applicant's registration No. with the Office                                   |  |
| State (that is, country) of nationality:  | State (that is, count                              | ry) of residence:  |  |
| This person is applicant all designated for the purposes of:  all designated the United States  | States except ates of America                      | the United States of America only the States indicated in the Supplemental Box |  |
| Name and address: (Family name followed by given name; for a legal entity, full official designation.  The address must include postal code and name of country. The country of the address indicated in this  Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) |  |  |  |
|   |  | applicant only applicant and inventor  |  |
|   |  | inventor only (If this check-box is marked, do not fill in below.)             |  |
|   |  | Applicant's registration No. with the Office                                   |  |
| State (that is, country) of nationality:  | State (that is, countr                             | y) of residence:   |  |
| This person is applicant all designated all designated for the purposes of: all designated the United States  | States except tes of America                       | the United States  the States indicated in the Supplemental Box                |  |
| Further applicants and/or (further) inventors are indicated on  |  |  |  |

Box No.V DESIGNATION

**TATES** 

Mark the applicable check-boxes belog

east one must be marked.

The following designations are hereby made under Rule 4.9(a):

### **Regional Patent**

- ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, MZ Mozambique, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZM Zambia, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT (if other kind of protection or treatment desired. X AP specify on dotted line)
- Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of
- European Patent: AT Austria, BE Belgium, BG Bulgaria, CH & LI Switzerland and Liechtenstein, CY Cyprus, CZ Czech Republic, DE Germany, DK Denmark, EE Estonia, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, SI Slovenia, SK Slovakia, TR Turkey, and any other State which is a Contracting State of the European Patent **⊠** EP Convention and of the PCT
- OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GQ Equatorial Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line

| Na           | tional l      | Patent (if other kind of protection or i | treat             | tment | desired, specify on dotted line):  |             |      |                             |
|--------------|---------------|--|-------------------|-------|------------------------------------|-------------|------|-----------------------------|
| $\boxtimes$  | ΑE            | United Arab Emirates                     |                   |       |                                    |             |      | New Zealand                 |
| X            | $\mathbf{AG}$ | Antigua and Barbuda                      |                   |       | Croatia                            |             |      |                             |
| ×            | AL            | Albania                                  |                   |       |                                    | X           | PH   | Philippines                 |
| X            | AM            | Armenia                                  | X                 | ID    |                                    |             |      | Poland                      |
| X            | AT            | Austria                                  | $\boxtimes$       | IL    |                                    |             |      | Portugal                    |
| X            | ΑU            | Australia                                | X                 | IN    | India                              |             |      |                             |
| ×            | AZ            | Azerbaijan                               | X                 | IS    | Iceland                            | X           | RU   | Russian Federation          |
| X            | BA            | Bosnia and Herzegovina                   |                   |       | Japan                              |             |      |                             |
| X            | BB            | Barbados                                 |                   |       | Kenya                              |             |      |                             |
| X            | BG            | Bulgaria                                 | X                 | KG    | Kyrgyzstan                         | $\boxtimes$ | SD   | Sudan                       |
| $\mathbf{X}$ | BR            | Brazil                                   | X                 | KP    |                                    |             |      |                             |
| X            | BY            | Belarus                                  |                   |       | of Korea                           | X           | SG   | Singapore                   |
| X            | BZ            | Belize                                   |                   |       |                                    |             |      |                             |
| X            | CA            | Canada                                   |                   |       | Kazakhstan                         |             |      |                             |
| X            | CH &          | LI Switzerland and Liechtenstein         |                   |       |                                    |             |      | Tajikistan                  |
| X            | CN            | China                                    |                   |       |                                    |             |      | Turkmenistan                |
| X            | CO            | Colombia                                 |                   |       | Liberia                            | _           |      | Tunisia                     |
| $\boxtimes$  | CR            | Costa Rica                               | X                 | LS    |                                    |             |      | Turkey                      |
| X            | CU            | Cuba                                     |                   |       |                                    | X           | TT   | Trinidad and Tobago         |
| X            | CZ            | Czech Republic                           |                   |       |                                    |             |      |                             |
|              | DE            | Germany                                  | X                 | LV    | Latvia                             |             |      | United Republic of Tanzania |
| X            | DK            | Denmark                                  |                   |       | Morocco                            |             |      |                             |
| _            | DM            | Dominica                                 | X                 |       | Republic of Moldova                |             |      |                             |
|              | DZ            | Algeria                                  |                   |       |                                    |             |      |                             |
| =            | EC            | Ecuador                                  |                   |       | Madagascar                         |             |      |                             |
| =            | EE            |  | X                 | MK    | The former Yugoslav Republic of    |             |      |                             |
|              | ES            | Spain                                    | _                 |       | Macedonia                          |             |      |                             |
| _            | FI            |  |                   |       | Mongolia                           |             |      | Viet Nam                    |
| X            | GB            | United Kingdom                           |                   |       | Malawi                             |             |      | Yugoslavia                  |
| $\boxtimes$  | GD            | Grenada                                  |                   |       | Mexico                             |             |      | South Africa                |
| X            | GE            | Georgia                                  |                   |       | Mozambique                         |             |      | Zambia                      |
| X            | GH            | Ghana                                    | X                 | NO    | Norway                             | X           | ZW   | Zimbabwe                    |
| _            | hook be       | oxes below reserved for designating S    | tates             | which | sh have become party to the PCT of | ter i       | cena | nce of this sheet           |
|              |               | caragua                                  |                   |       |                                    |             |      |                             |
|              |               |  |                   |       |                                    |             |      |                             |
|              | 79.7          | apua New Guinea                          | $\mathbf{\omega}$ | ₽9.   | ₽ <b>9УР</b> <sup>1</sup>          | ш           |      |                             |

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

2.



in the request.

If, in any of the Boxes, except Boxes Nos VIII(i) to (v) for which a Continuation of Box IV: 1. special continuation box is provided, the space is insufficient to furnish all the information: in such case, write "Continuation of Box No...." (indicate the number of the Box) and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular: (i)

if more than two persons are to be indicated as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;

if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;

(iii) if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. II" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;

if, in addition to the agent(s) indicated in Box No. IV, there are further agents: in such case, write "Continuation of Box No. IV and indicate for each further agent the same type of information as required in Box No. IV;

if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition," or if, in Box No. V, the name of the United States of America is accompanied by an indication "continuation" or "continuation-in-part": in such case, write "Continuation of Box No. V" and the name of each State involved (or OAPI), and after the name of each such State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application;

(vi) if, in Box No. VI, there are more than five earlier applications whose priority is claimed: in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI.

If, with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s) from the scope of that statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicate the name or two-letter code of each State so excluded.

SMITH, Charles E. (32,085) COLLINS, Douglas J. (43,561) LAWSON, Gary D. (27,696) PLUMMER, J. Paul (40,775) WILSON, Pamela L. (32,865 WOLFS, Denise Y. (32,074) (32.865)

**EXXONMOBIL UPSTREAM RESEARCH COMPANY** 

P. O. Box 2189 Houston, Texas 77252-2189 United States of America

|       |    | 5 |
|-------|----|---|
| Sheet | Nο | • |

| Box No. VI PRIORITY   | M  |  |  |   |
|---|--|--|--|---|
| The priority of the following e   | earlier application(s) is hereby                                 | y claimed:   |  |   |
| Filing date   | Number   | v  | Where earlier application                                  | is:   |
| of earlier application (day/month/year)   | of earlier application   | national application:<br>country or Member<br>of WTO           | regional application:* regional Office                     | international application: receiving Office           |
| item (1)<br>(31/03/03)<br>31 March 2003   | 60/459,151   | us   |  |   |
| item (2)  |  |  |  |   |
| item (3)  |  |  |  |   |
| item (4)  |  |  |  |   |
| item (5)  |  |  |  |   |
| Further priority claims a   | are indicated in the Supplemen                                   | ntal Box.  |  |   |
| The receiving Office is reque (only if the earlier application Office) identified above as: | ested to prepare and transmi<br>on was filed with the Office     | it to the International Bur<br>which for the purposes          | eau a certified copy of of this international app          | the earlier application(s) plication is the receiving |
| all items item (1   | 1) item (2)  | item (3) item (4)  | item (5)   | other, see<br>Supplemental Box                        |
| * Where the earlier application<br>Industrial Property or one Memb                          | is an ARIPO application, indi<br>per of the World Trade Organiza | cate at least one country po<br>ition for which that earlier a | arty to the Paris Conventi<br>pplication was filed (Rule 4 | on for the Protection of 1.10(b)(ii)):                |
| Box No. VII INTERNAT  | FIONAL SEARCHING AU  | THORITY  |  |   |
| Choice of International Sea international search, indicate the                              | arching Authority (ISA) (if Authority chosen; the two-letter     | two or more International r code may be used):                 | Searching Authorities are                                  | competent to carry out the                            |
| ISA/ us   | ••••   |  |  |   |
| Request to use results of ea<br>International Searching Authority                           |  | that search (if an earlier s                                   | search has been carried or                                 | ut by or requested from the                           |
| Date (day/month/year)   | Numb <del>er</del>   | Country (or regi   | ional Office)  |   |
| Box No. VIII DECLARAT   | TIONS  |  |  |   |
| The following declarations a check-boxes below and indica                                   |  |  |  | Number of declarations                                |
| Box No. VIII (i)  | Declaration as to the identity                                   | y of the inventor  |  | :   |
| Box No. VIII (ii)   | Declaration as to the applicadate, to apply for and be gra       |  | international filing                                       | : 1   |
| Box No. VIII (iii)  | Declaration as to the applicadate, to claim the priority of      |  | international filing                                       | : 4   |
| Box No. VIII (iv)   | Declaration of inventorship<br>United States of America)         | (only for the purposes of                                      | the designation of the                                     | : 2   |
| D Box No VIII (v)   | Declaration as to non-prejud                                     | dicial disabetures or aveca                                    | stions to look of novelty                                  |   |

ION: ENTITLEMENT TO APPLY FOR AND BE



The declaration must conform to the standardized wording provided for in Section 212; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (ii). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate:

in relation to this international application

EXXONMOBIL UPSTREAM RESEARCH COMPANY is entitled to apply for and be granted a patent by virtue of the following:

an assignment from DALE, Bruce A., MOHR, John W. and YEH, Charles S. to EXXONMOBIL UPSTREAM RESEARCH COMPANY dated 29 April 2003 (29/04/03).

This declaration is made for the purposes of all designations, except the designations of the United States of America.

This declaration is continued on the following sheet, "Continuation of Box No. VIII (ii)".

Sheet No. ....7

Box No. VIII (iii) DECLA

DN: ENTITLEMENT TO CLAIM PRIORITY

The declaration must conform to me standardized wording provided for in Section 213; see No. 5 to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iii). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii)):

in relation to this international application

EXXONMOBIL UPSTREAM RESEARCH COMPANY is entitled to claim priority of earlier application

No. 60/459,151

by virtue of the following:

an assignment from DALE, Bruce A., MOHR, John W. and YEH, Charles S. to EXXONMOBIL UPSTREAM RESEARCH COMPANY, dated 29 April 2003 (29/04/03).

This declaration is made for the purposes of all designations, except the designations of the United States of America.

This declaration is continued on the following sheet, "Continuation of Box No. VIII (iii)".

# Box No. VIII (iii) DECLAH

### ON: ENTITLEMENT TO CLAIM PRIORITY



The declaration must conform to the standardized wording provided for in Section 213; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iii). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii)):

in relation to this international application

DALE, Bruce A. is entitled to claim priority of earlier application

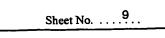
No. 60/459,151

by virtue of the following:

the applicant is the inventor of the subject matter for which protection was sought by way of the earlier application.

This declaration is made for the purposes of the following designations for national and/or regional patents: US.

This declaration is continued on the following sheet, "Continuation of Box No. VIII (iii)".



DN: ENTITLEMENT TO CLAIM PRIORITY Box No. VIII (iii) DECLA

The declaration must conform to the standardized wording provided for in Section 213; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iii). If this Box is not used, this sheet should not be included in the request. Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii)):

in relation to this international application

MOHR, John W. is entitled to claim priority of earlier application

No. 60/459,151

by virtue of the following:

the applicant is the inventor of the subject matter for which protection was sought by way of the earlier application.

This declaration is made for the purposes of the following designations for national and/or regional patents: US.

This declaration is continued on the following sheet, "Continuation of Box No. VIII (iii)".



### N: ENTITLEMENT TO CLAIM PRIORITY

Box No. VIII (iii) The declaration must conform to the standardized wording provided for in Section 213; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iii). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii)):

in relation to this international application

YEH, Charles S. is entitled to claim priority of earlier application

No. 60/459,151

by virtue of the following:

the applicant is the inventor of the subject matter for which protection was sought by way of the earlier application.

This declaration is made for the purposes of the following designations for national and/or regional patents: US.

DECLAR Box No. VIII (iv)

INVENTORSHIP (only for the purposes of the designation

he United States of America)

Boxes Nos. VIII (i) to (v) (in general The declaration must conform to the force ving standardized wording provided for in Section 214; see No. and the specific Notes to Box No. VIII (iv). If this Box is not used, this sheet should not be included in the request.

# Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes of the designation of the United States of America:

|     |   | and inventor is listed below) or joint (if more than one  |
|-----|---|---|
| iı  | hereby declare that I believe I am the original, first and sole (if only aventor is listed below) inventor of the subject matter which is claimed an  |   |
| 1   | his declaration is directed to the international application of which it form   | ns a part (if filing declaration with application).   |
|     | This declaration is directed to international application No. PCT/  | (if furnishing declaration pursuant   |
| ľ   | hereby declare that my residence, mailing address, and citizenship are as   | stated next to my name.   |
| 1 6 | hereby state that I have reviewed and understand the contents of the claims of said application. I have identified in the request of said application priority, and I have identified below, under the heading "Prior Algorithm World Trade Organization, day, month and year of filing, any application than the United States of America, including any PCT international United States of America, having a filing date before that of the application | e above-identified international application, including the lication, in compliance with PCT Rule 4.10, any claim to pplications," by application number, country or Member of ation for a patent or inventor's certificate filed in a country application designating at least one country other than the on on which foreign priority is claimed. |
|     | Prior Applications:   |   |
|     |   |   |
|     | I hereby acknowledge the duty to disclose information that is known by §1.56, including for continuation-in-part applications, material information application and the PCT international filing date of the continuation   | HOR WHICH COCKETS C. MILES  |
|     | I hereby declare that all statements made herein of my own knowledge<br>belief are believed to be true; and further that these statements were ma-<br>like so made are punishable by fine or imprisonment, or both, under S<br>such willful false statements may jeopardize the validity of the application   | ection 1001 of Title 18 of the United States Code and that on or any patent issued thereon.   |
|     |   |   |
|     | Citizenship: USA  Inventor's Signature:  (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)   | or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)  |
|     |   |   |
|     | Citizenship: USA.  Inventor's Signature: Date Much.  (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)   | Date: // 19/2021  (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)   |
| 1   |   |   |

This declaration is continued on the following sheet, "Continuation of Box No. VIII (iv)".

Sheet No. ..12...

**DECLARA** Box No. VIII (iv)

INVENTORSHIP (only for the purposes of the designation

he United States of America) soxes Nos. VIII (i) to (v) (in general

The declaration must conform to the following standardized wording provided for in Section 214; see Not and the specific Notes to Box No. VIII (iv). If this Box is not used, this sheet should not be included in the request.

### Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes of the designation of the United States of America:

| for the purposes of the designation of the   |   |
|--|---|
| I hereby declare that I believe I am the original, first and sole (if only inventor is listed below) inventor of the subject matter which is claimed and   |   |
| This declaration is directed to the international application of which it form   | is a part (if filing declaration with application).   |
| This declaration is directed to international application No. PCT/ to Rule 26ter).   | l l   |
| I hereby declare that my residence, mailing address, and citizenship are as  | stated next to my name.   |
| I hereby state that I have reviewed and understand the contents of the claims of said application. I have identified in the request of said application priority, and I have identified below, under the heading "Prior Ap the World Trade Organization, day, month and year of filing, any applica other than the United States of America, including any PCT international United States of America, having a filing date before that of the application | plications," by application number, country or Member of tion for a patent or inventor's certificate filed in a country application designating at least one country other than the n on which foreign priority is claimed. |
| Prior Applications:  |   |
|  |   |
| I hereby acknowledge the duty to disclose information that is known by §1.56, including for continuation-in-part applications, material information application and the PCT international filing date of the continuation  | -in-part application.   |
| I hereby declare that all statements made herein of my own knowledge<br>belief are believed to be true; and further that these statements were made<br>like so made are punishable by fine or imprisonment, or both, under Se<br>such willful false statements may jeopardize the validity of the application  | ection 1001 of Title 18 of the United States Code and that or any patent issued thereon.  |
| Name: YEH, Charles S.  |   |
| Residence: Spring, TX  |   |
| Mailing Address: 9511 Merlins Oaks Court   |   |
| Citizenship: USA.  Inventor's Signature:  (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)   | or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)  |
| Name:  |   |
| Residence:   |   |
|  |   |
|  |   |
| Citizenship:  Inventor's Signature:  (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)  | Date:   |
|  |   |
|  |   |
| This declaration is continued on the following sheet, "Continuation  | on of Box No. VIII (iv)".   |

| Sheet | NI. | 13 |
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| Sheet | NΛ  | ιo |

| Box No. IX CHECK LIST; LA  | FILING  |                    |
|--|---|--------------------|
| Box No. IX CHECK LIST; LA AGE OF his international application contains: a) in paper form, the following number of                                       | This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):              | Number<br>of items |
| sheets:  | 1. The fee calculation sheet  | : 1                |
| request (including   | 2. Original separate power of attorney  | : 1                |
| declaration sheets) : 13   |   |                    |
| description (excluding   | 3. original general power of attorney   | · .                |
| sequence listings and/or tables related thereto) 18  | 4. copy of general power of attorney; reference number,   | :                  |
| claims : 6   | if any:   |                    |
| . 11   | 5. statement explaining lack of signature   | ·                  |
| abstract . 6   | 6. priority document(s) identified in Box No. VI as   | :                  |
| drawings : 44  | item(s):  |                    |
| sequence listings :  | (language):   |                    |
| tables related thereto :   | or other biological material  | :                  |
| (for both, actual number of sheets if filed in paper form,   | <ol> <li>sequence listings in computer readable form<br/>(indicate type and number of carriers)</li> </ol>  |                    |
| whother or not also like in  |   | h j                |
| computer readable form; see<br>(c) below) :  | (i) Copy submitted for the purposes of under Rule 13ter only (and not as part of the internation)   | onal :             |
| Total number of sheets : 44  | application)  - (1) is marked in left   |                    |
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| (i) sequence listings  |   |                    |
| (ii) tables related thereto  | (iii) cogether with relevant statement as to the identity of to or copies with the sequence listings mentioned in left  | columi :           |
| also in computer readable form   |   |                    |
| (Section 801(a)(ii)) (i) sequence listings   | 10. tables in computer readable form related to sequence lis (indicate type and number of carriers)   |                    |
| (ii) tables related thereto  | - and submitted for the purposes of international search  | :h under           |
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| contained the  | - $        -$   | eft _              |
| sequence listings:   | (ii) (only where check-box (b)(ii) or (c)(ii) is an analysis and (column) additional copies including, where applicable   | e, the             |
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| tables related thereto:  | 1 X()2(h-auater)  |                    |
| (additional copies to be indicated under   | (iii) together with relevant statement as to the identity of or copies with the tables mentioned in left column   | tue coby           |
| items 9(ii) and/or 10(ii), in right column)  | 11.  other (specify):   |                    |
| Figure of the drawings which   | Language of filing of the   |                    |
| t 11monty the aberract' U/A  | international application:  |                    |
| Box No. X SIGNATURE OF APPLICANT,  | AGENT OR COMMON REPRESENTATIVE and the capacity in which the person signs (if such capacity is not obvious from read  | ling the request). |
| Next to each signature, maicate the name of the person organized   |   |                    |
|  |   |                    |
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| Gary P. Katz, Agent  |   |                    |
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| Date of actual receipt of the purported international application:   | :   | received:          |
| <ol> <li>Corrected date of actual receipt due to later<br/>timely received papers or drawings comple<br/>purported international application:</li> </ol> | ting the  | not received       |
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